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Inland Transport Committee

Working Party on the Transport of Dangerous Goods

Administrative Committee of the European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)

European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)

Draft amendments to the Regulations annexed to ADN*

Corrigendum

1. **Amendment to Part 1, Chapter 1.2, definition for Flame arrester**

   For Directive 2014/34/EU,[2] *read* Directive 2014/34/EU,[2] the IECEx System,[5]

2. **Amendment to Part 1, Chapter 1.2, definition for High-velocity vent valve**

   For Directive 2014/34/EU,[2] *read* Directive 2014/34/EU,[2] the IECEx System,[5]

3. **Amendment to Part 1, Chapter 1.2, definition for Sampling opening**

   For Directive 2014/34/EU,[2] *read* Directive 2014/34/EU,[2] the IECEx System,[5]

4. **Amendment to Part 1, Chapter 1.2, definition for Toximeter**

   For Directive 2014/34/EU,[2] *read* Directive 2014/34/EU,[2] the IECEx System,[5]

5. **Amendment to Part 1, Chapter 1.2, definition for Vacuum valve**

   For Directive 2014/34/EU,[2] *read* Directive 2014/34/EU,[2] the IECEx System,[5]

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[2] *Official Journal of the European Union No. L 96 of 29 March 2014, p. 309.*

[5] http://iecex.com/rules.

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6. **Amendment to Part 1, Chapter 1.2, definition for Device for the safe depressurization of cargo tanks**

For Directive 2014/34/EU,[2] *read* Directive 2014/34/EU,[2] the IECEx System,[5]

7. **Amendment to Part 1, Chapter 1.4, 1.4.2.2.2**

For container, vehicle or wagon packing certificate *read* container/vehicle packing certificate

8. **Amendment to Part 1, Chapter 1.6, new transitional measure 1.6.1.44**

Not applicable to English

9. **Amendment to Part 1, Chapter 1.6, 1.6.7.2.2.2**

For

1.6.7.2.2.2 Renumber the transitional provision for "9.3.3.52.5" as "9.3.3.52.6". Remainder unchanged.

Read

1.6.7.2.2.2 Renumber the transitional provision for "9.3.3.52.5" as "9.3.3.52.6". In the column "Subject" replace "switch" by "multipolar switch". Remainder unchanged.

10. **Amendment to Part 1, Chapter 1.6, 1.6.7.2.2.2, new transitional provisions, 1.2.1 - Gas detector**

For IEC 60079-29-1:2011 *read* IEC 60079-29-1:2016

11. **Amendment to Part 1, Chapter 1.6, 1.6.7.2.2.2, new transitional provisions, 1.2.1 - Device for the safe depressurization of cargo tanks**

For Test according to ISO 16852:2016 or EN ISO 16852:2016/Proof of conformity with applicable requirements *read* Test according to ISO 16852:2016/Proof of conformity with applicable requirements

12. **Amendment to Part 1, Chapter 1.8, 1.8.3.1**

For the existing text *substitute:*

1.8.3.1 At the beginning, replace "the activities of which include the carriage, or the related packing, loading, filling or unloading, of dangerous goods by inland waterways" by "the activities of which include the consigning or the carriage of dangerous goods by inland waterways, or the related packing, loading, filling or unloading".

13. **Amendment to Part 2, Chapter 2.1, 2.1.3.5.5**

For existing text *substitute:*

2.1.3.5.5 Amend footnote 2 to read as follows:

"[2] Such legislation is for instance the Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous wastes pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous wastes (Official Journal of the European Communities No. L 226 of 6 September 2000, page 3), as amended; and Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Official Journal of the European Union No. L312 of 22 November 2008, pages 3-30), as amended."

14. Amendment to Part 2, Chapter 2.2, 2.2.51.1.3

For thirteenth indent *read* thirteenth and fourteenth indents

15. Amendment to Part 2, Chapter 2.2, 2.2.51.2.2, under the indent ending with "other than UN No. 2067;"

Insert

NOTE: *The term "competent authority" means the competent authority of the country of origin. If the country of origin is not a Contracting Party to ADR, the classification and conditions of carriage shall be recognized by the competent authority of the first country Contracting Party to ADR reached by the consignment.*

16. Amendment to Part 2, Chapter 2.2, 2.2.9.1.7, new sub- paragraph (g), after "cells or batteries"

Insert manufactured after 30 June 2003

17. Amendment to Part 3, Chapter 3.1, 3.1.2.8.1.3, example

Not applicable to English

18. Amendment to Part 3, Chapter 3.2, Table A, new entries, UN Nos. 3535, 3536, 3537, 3538, 3539, 3540, 3541, 3542, 3543, 3544, 3545, 3546, 3547, 3548, column (8)

Delete existing text

19. Amendment to Part 3, Chapter 3.2, Table A, new entries, UN No. 3536, column (5)

For 99 *read* 9

20. Amendment to Part 3, Chapter 3.2, 3.2.3.1, remark 44

Not applicable to English.

21. Amendment to Part 3, Chapter 3.2, Table C, UN Nos. 1578, 1663, 2078, 2205, 2259, 2280, 3446

3.2.3.2 In the following entries, amend column (16) to read "II B (II B3[14])":

1578 (first entry)	CHLORONITROBENZENES, SOLID, MOLTEN
1663 (first entry)	NITROPHENOLS
2078 (first entry)	TOLUENE DIISOCYANATE (and isomeric mixtures) (2,4-TOLUENE DIISOCYANATE)
2205	ADIPONITRILE
2259	TRIETHYLENETETRAMINE
2280 (first entry)	HEXAMETHYLENEDIAMINE, SOLID, MOLTEN
3446 (first entry)	NITROTOLUENES, SOLID, MOLTEN (p-NITROTOLUENE)

22. Amendment to Part 3, Chapter 3.2, Table C, new entries, UN No. 1148, column (15)

For T1 *read* T1 [12)]

23. Amendment to Part 3, Chapter 3.2, Table C, new entries, UN No. 1203, column (2)

Not applicable to English.

24. Amendment to Part 3, Chapter 3.2, Table C, new entries, UN Nos. 2920, 3272 (first entry), column (15)

For T2 *read* T2 [12)]

25. Amendment to Part 3, Chapter 3.2, Table C, new entries, UN No. 3272, column (2)

Not applicable to English.

26. Amendment to Part 3, Chapter 3.2, 3.2.4.3, A

For existing text *substitute*

3.2.4.3, A In columns (6), (7) and (8), replace "High-velocity vent valve opening pressure" by "Pressure relief valve/high velocity vent valve opening pressure" (10 times).

3.2.4.3, A In columns (6), (7) and (8), point 3, replace "with eductor opening pressure" by "with pressure relief valve/high velocity vent valve opening pressure".

3.2.4.3, A In columns (6), (7) and (8), point 4, replace "high-velocity vent valve/safety valve opening pressure" by "Pressure relief valve/high velocity vent valve opening pressure".

27. Amendment to Part 3, Chapter 3.3, special provision 251, sub-paragraph (a)

Not applicable to English

28. Amendment to Part 3, Chapter 3.3, special provision 307, second sentence

For thirteenth indent *read* thirteenth and fourteenth indents

29. Amendment to Part 3, Chapter 3.3, new special provision 388, fourth paragraph

Not applicable to English

30. Amendment to Part 3, Chapter 3.3, in new special provision 392, in sub-paragraph (a), in the table, penultimate row, second column

For Hydrogen and fuel cell vehicles (HFCV) *read* Uniform provisions concerning the approval of motor vehicles and their components with regard to the safety-related performance of hydrogen-fuelled vehicles (HFCV)

31. Amendment to Part 3, Chapter 3.3, in new special provision 392, in sub-paragraph (b), Note 1

For ISO 11623:2015 Transportable gas cylinders – Periodic inspection and testing of composite gas cylinders *read* ISO 11623:2015 Gas cylinders – Composite construction – Periodic inspection and testing

32. Amendment to Part 3, Chapter 3.3, in new special provision 392, examples at the end

Not applicable to English

33. Amendment to Part 5, Chapter 5.2, 5.2.2.2.2, in the table, for Label model No. 2.1, in column "Division or Category"

Delete (except as provided for in 5.2.2.2.1.6 d))

34. Amendment to Part 5, Chapter 5.2, 5.2.2.2.2, in the table, for Label model No. 2.1, in columns "Symbol and symbol colour" and "Figure in bottom corner (and figure colour)" at the end

Insert (except as provided for in 5.2.2.2.1.6 (d))

35. Amendment to Part 5, Chapter 5.2, 5.2.2.2.2, table, for Class 4.1 hazard,

For solid desensitized explosives and polymerizing substances *read* polymerizing substances and solid desensitized explosives

36. Amendment to Part 5, Chapter 5.3, 5.3.1.2

For the existing text, *substitute*

5.3.1.2 In the title, after "containers,", insert: "bulk containers,".

5.3.1.2 Amend the first paragraph after the Note to read as follows:

"The placards shall be affixed to both sides and at each end of the container, bulk container, MEGC, tank-container or portable tank and to two opposite sides in the case of flexible bulk containers.".

37. Amendment to Part 7, Chapter 7.2, 7.2.3.7.1.2, at the end

Insert

- Any entrances or openings of spaces connected to the outside are closed; this provision does not apply to the air supply openings of the engine room and overpressure ventilation systems;
- Any member of the crew working on deck is wearing suitable protective equipment;
- It is not carried out within the area of locks including their lay-bys, under bridges or within densely populated areas.

38. Amendment to Part 8, Chapter 8.2, 8.2.2.3.3.2

Not applicable to English.

39. Amendment to Part 9, Part 9, footnote 2, all occurrences

For 29 August 2008 *read* 4 June 2008

40. Amendment to Part 9, Chapter 9.3, 9.3.1.52.6, 9.3.2.52.6 and 9.3.3.52.6, first sentence

For switch *read* multipolar switch

41. Amendment to Part 9, Chapter 9.3, 9.3.3.22.4 (d), last paragraph

For pressure relief valves *read* its own safety valves

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Draft amendments to the Regulations annexed to ADN*

Addendum

Chapter 1.2

1.2.1 Add the following definition:

"UN Regulation means a regulation annexed to the Agreement concerning the adoption of uniform technical prescriptions for wheeled vehicles equipment and parts which can be fitted and or used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions (1958 Agreement, as amended);".

Chapter 1.6

1.6.1 Add the following transitional provision:

"1.6.1.47 Lithium cells and batteries not meeting the requirements of 2.2.9.1.7 (g) may continue to be carried until 31 December 2019."

1.6.7.4.2 Delete and insert "1.6.7.4.2 *(Deleted)*".

Chapter 2.1

2.1.5 Add the following Note at the beginning:

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"NOTE 1: For articles which do not have a proper shipping name, other than UN 3537 to 3548 and which contain only dangerous goods within the permitted limited quantity amounts specified in Column (7a) of Table A of Chapter 3.2, see UN No. 3363 and special provisions 301 and 672 of Chapter 3.3.".

Chapter 2.2

2.2.9.2 In the first indent, replace "special provisions 188, 230, 310 or 636 of Chapter 3.3" by "special provisions 188, 230, 310, 636 or 670 of Chapter 3.3".

Chapter 3.2, Table A

For UN Nos. 1002, 1006, 1013, 1046, 1056, 1058, 1065, 1066, 1952, 1956, 3070, 3163, 3297, 3298 and 3299, insert "660" in column (6).

For UN No. 2071, in column (6) delete "186".

Chapter 5.2

5.2.1.5 Amend the second sentence to read as follows:

"The mark, which shall be clearly legible and indelible, shall be in one or more languages, one of which must be French, German or English, unless any agreements concluded between the countries concerned in the transport operation provide otherwise.".

5.2.2.2.1.1.2 Replace the second and third sentences by "The minimum dimensions shall be 100 mm x 100 mm. There shall be a line inside the edge forming the diamond which shall be parallel and approximately 5 mm from the outside of that line to the edge of the label.".

5.2.2.2.1.6 (d) Replace "for gases of UN Nos. 1011, 1075, 1965 and 1978" by "for liquefied petroleum gases".

Chapter 5.3

5.3.1.7.1 The amendments to the second paragraph in the French version do not apply to the English text.

5.3.1.7.1 At the end, add the following sentence: "The deviations specified in 5.2.2.2.1, second sentence, 5.2.2.2.1.3, third sentence and 5.2.2.2.1.5 for danger labels also apply to placards."

5.3.2.3.2 Amendments to the French version do not apply to the English text.

5.3.3 The amendment to the French version does not apply to the English text.

Chapter 5.4

5.4.2 Add the following Note after the heading:

"NOTE: For the purposes of this section the term "vehicle" includes wagon.".

Chapter 7.1

7.1.0.1 Replace "7.1.6" by "7.1.7".

7.1.6 Replace "7.1.6.17 to 7.1.7.99 *(Reserved)*" *by* "7.1.6.17 to 7.1.6.99 *(Reserved)*".

7.1 Add the following new 7.1.7:

"7.1.7 Special provisions applicable to the carriage of self-reactive substances of Class 4.1, organic peroxides of Class 5.2 and substances stabilized by temperature control (other than self-reactive substances and organic peroxides)

7.1.7.1 All self-reactive substances, organic peroxides and polymerizing substances shall be protected from direct sunlight and all sources of heat, and placed in adequately ventilated areas.

7.1.7.2 Where a number of packages are assembled in a container or closed vehicle, the total quantity of substance, the type and number of packages and the stacking arrangement shall not create an explosion hazard.

7.1.7.3 *Temperature control provisions*

7.1.7.3.1 These provisions apply to certain self-reactive substances when required by 2.2.41.1.17, and certain organic peroxides when required by 2.2.52.1.15 and certain polymerizing substances when required by 2.2.41.1.21 or special provision 386 of Chapter 3.3 which may only be carried under conditions where the temperature is controlled.

7.1.7.3.2 These provisions also apply to the carriage of substances for which:

(a) The proper shipping name as indicated in column (2) of Table A of Chapter 3.2 or according to 3.1.2.6 contains the word "STABILIZED"; and

(b) The SADT or SAPT determined for the substance (with or without chemical stabilization) as offered for carriage is:

(i) 50 °C or less for single packagings and IBCs; or

(ii) 45 °C or less for tanks.

When chemical inhibition is not used to stabilize a reactive substance which may generate dangerous amounts of heat and gas, or vapour, under normal carriage conditions, this substance needs to be carried under temperature control. These provisions do not apply to substances which are stabilized by the addition of chemical inhibitors such that the SADT or the SAPT is greater than that prescribed in (b) (i) or (ii), above.

7.1.7.3.3 In addition, if a self-reactive substance or organic peroxide or a substance the proper shipping name of which contains the word "STABILIZED" and which is not normally required to be carried under temperature control is carried under conditions where the temperature may exceed 55 °C, it may require temperature control.

7.1.7.3.4 The "control temperature" is the maximum temperature at which the substance can be safely carried. It is assumed that during carriage the temperature of the immediate surroundings of the package does not exceed 55 °C and attains this value for a relatively short time only during each period of 24 hours. In the event of loss of temperature control, it may be necessary to implement emergency procedures. The "emergency temperature" is the temperature at which such procedures shall be implemented.

7.1.7.3.5 Derivation of control and emergency temperatures

Type of receptacle	SADT[a]/SAPT[a]	Control temperature	Emergency temperature
Single packagings and IBCs	20 °C or less over 20 °C to 35 °C over 35 °C	20 °C below SADT/SAPT 15 °C below SADT/SAPT 10 °C below SADT/SAPT	10 °C below SADT/SAPT 10 °C below SADT/SAPT 5 °C below SADT/SAPT
Tanks	≤ 45 °C	10 °C below SADT/SAPT	5 °C below SADT/SAPT

[a] i.e. the SADT/SAPT of the substance as packed for carriage.

7.1.7.3.6 The control and emergency temperatures are derived using the table in 7.1.7.3.5 from the SADT or from the SAPT which are defined as the lowest temperatures at which self-accelerating decomposition or self-accelerating polymerization may occur with a substance in the packaging, IBC or tank as used in carriage. An SADT or SAPT shall be determined in order to decide if a substance shall be subjected to temperature control during carriage. Provisions for the determination of the SADT and SAPT are given in Part II, section 28 of the Manual of Tests and Criteria.

7.1.7.3.7 Control and emergency temperatures, where appropriate, are provided for currently assigned self-reactive substances in 2.2.41.4 and for currently assigned organic peroxide formulations in 2.2.52.4.

7.1.7.3.8 The actual carriage temperature may be lower than the control temperature but shall be selected so as to avoid dangerous separation of phases.

7.1.7.4 *Carriage under temperature control*

7.1.7.4.1 Maintenance of the prescribed temperature is an essential feature of the safe carriage of substances stabilized by temperature control. In general, there shall be:

(a) Thorough inspection of the cargo transport unit prior to loading;

(b) Instructions to the carrier about the operation of the refrigeration system including a list of the suppliers of coolant available en route;

(c) Procedures to be followed in the event of loss of control;

(d) Regular monitoring of operating temperatures; and

(e) Provision of a back-up refrigeration system or spare parts.

7.1.7.4.2 Any control and temperature sensing devices in the refrigeration system shall be readily accessible and all electrical connections weather-proof. The temperature of air space within the cargo transport unit shall be measured by two independent sensors and the output shall be recorded so that temperature changes are readily detectable. The temperature shall be checked every four to six hours and logged. When substances having a control temperature of less than +25 °C are carried, the cargo transport unit shall be equipped with visible and audible alarms, powered independently of the refrigeration system, set to operate at or below the control temperature.

7.1.7.4.3 If during carriage the control temperature is exceeded, an alert procedure shall be initiated involving any necessary repairs to the refrigeration equipment or an increase in the cooling capacity (e.g. by adding liquid or solid refrigerants). The temperature shall also be checked frequently and preparations made for implementation of the emergency procedures. If the emergency temperature is reached, the emergency procedures shall be initiated.

7.1.7.4.4 The suitability of a particular means of temperature control for carriage depends on a number of factors. Factors to be considered include:

(a) The control temperature(s) of the substance(s) to be carried;

(b) The difference between the control temperature and the anticipated ambient temperature conditions;

(c) The effectiveness of the thermal insulation;

(d) The duration of carriage; and

(e) Allowance of a safety margin for delays.

7.1.7.4.5 Suitable methods for preventing the control temperature being exceeded are, in order of increasing control capability:

(a) Thermal insulation provided that the initial temperature of the substance(s) to be carried is sufficiently below the control temperature;

(b) Thermal insulation with coolant system provided that:

(i) An adequate quantity of non-flammable coolant (e.g. liquid nitrogen or solid carbon dioxide), allowing a reasonable margin for delay, is carried or a means of replenishment is assured;

(ii) Liquid oxygen or air is not used as coolant;

(iii) There is a uniform cooling effect even when most of the coolant has been consumed; and

(iv) The need to ventilate the transport unit before entering is clearly indicated by a warning on the door(s) of the transport unit;

(c) Thermal insulation and single mechanical refrigeration provided that for substance(s) to be carried with a flash point lower than the sum of the emergency temperature plus 5 °C explosion-proof electrical fittings, EEx IIB T3 are used within the cooling compartment to prevent ignition of flammable vapours from the substances;

(d) Thermal insulation and combined mechanical refrigeration system with coolant system; provided that:

(i) The two systems are independent of one another;

(ii) The provisions in (b) and (c) are complied with;

(e) Thermal insulation and dual mechanical refrigeration system; provided that:

(i) Apart from the integral power supply unit, the two systems are independent of one another;

(ii) Each system alone is capable of maintaining adequate temperature control; and

(iii) For substance(s) to be carried with a flash point lower than the sum of the emergency temperature plus 5 °C explosion-proof electrical fittings, EEx IIB T3 are used within the cooling compartment to prevent ignition of flammable vapours from the substances.

7.1.7.4.6 The methods described in 7.1.7.4.5 (d) and (e) may be used for all organic peroxides and self-reactive substances and polymerizing substances.

The method described in 7.1.7.4.5 (c) may be used for organic peroxides and self-reactive substances of Types C, D, E and F and, when the maximum ambient temperature

to be expected during carriage does not exceed the control temperature by more than 10 °C, for organic peroxides and self-reactive substances of Type B and polymerizing substances.

The method described in 7.1.7.4.5 (b) may be used for organic peroxides and self-reactive substances of Types C, D, E and F and polymerizing substances when the maximum ambient temperature to be expected during carriage does not exceed the control temperature by more than 30 °C.

The method described in 7.1.7.4.5 (a) may be used for organic peroxides and self-reactive substances of Types C, D, E and F and polymerizing substances when the maximum ambient temperature to be expected during carriage is at least 10 °C below the control temperature.

7.1.7.4.7 Where substances are required to be carried in insulated, refrigerated or mechanically-refrigerated vehicles or containers, these vehicles or containers shall satisfy the requirements of Chapter 9.6 of ADR.

7.1.7.4.8 If substances are contained in protective packagings filled with a coolant, they shall be loaded in closed or sheeted vehicles or closed or sheeted containers. If the vehicles or containers used are closed they shall be adequately ventilated. Sheeted vehicles and containers shall be fitted with sideboards and a tailboard. The sheets of these vehicles and containers shall be of an impermeable and non-combustible material.".

7.1.7 Insert "7.1.7.5 to 7.1.9.99 *(Reserved)*".